

WHAT IS CLAIMED IS:

1 1. A method for creating an analytical report using a multidimensional
2 data model and a database, wherein a computer system accesses the database to provide
3 returned values responsive to queries specified in a predefined query language, wherein the
4 multidimensional data model includes a plurality of dimensions organizing data as sets of
5 values organized in a multidimensional cube structure, wherein the method includes a user
6 interface executing on a computer system operated by a human user, wherein the computer
7 system executing the user interface includes a processor coupled to a memory, wherein the
8 processor is further coupled to the user interface, data model, and the database, the method
9 comprising:
10 presenting to the user a plurality of selections associated with reporting
11 objects;
12 accepting a user input to select at least one reporting object;
13 parsing the selected reporting objects into layout information and data
14 definition information;
15 using the data definition information to deduce a set of data;
16 creating one or more queries based upon the deduced set of data; and
17 querying a data source to retrieve data associated with the deduced set of data.

1 2. The method of claim 1, further comprising :
2 providing the retrieved data to the user to generate the report according to the
3 user's selected reporting objects; and
4 using the layout information to present the retrieved data in a report format
5 associated with the layout information.

1 3. The method of claim 1, wherein accepting user inputs is by dragging
2 and dropping graphical representation of the reporting object in a position relative to one or
3 more other graphically represented reporting objects, where the position to the other
4 graphically represented reporting objects determines that layout information and the data
5 definition information.

1 4. The method of claim 1, wherein accepting user inputs is by entering
2 instructions into a text editor.

1 5. The method of claim 1, wherein accepting user inputs further
2 comprises generating a report specification, wherein the report specification includes a set of
3 computer program instructions.

1 6. The method of claim 5, wherein the set of computer program
2 instructions include XML tags.

1 7. The method of claim 1, wherein parsing the accepted reporting objects
2 further comprises building a data source query from the data definition information.

1 8. The method of claim 1, wherein using the data definition information
2 to deduce the set of data further comprises deducing a physical cube structure, wherein the
3 physical cube structure includes the set of data.

1 9. The method of claim 1, wherein creating the query based upon the
2 deduced cube structure includes using RDBMS query techniques.

1 10. The method of claim 1, wherein creating the query based upon the
2 deduced cube structure includes using OLAP query techniques.

1 11. A system for creating an analytical report using a multidimensional
2 data model to access a database, wherein the multidimensional data model includes a
3 plurality of dimensions organizing data as sets of values organized in a multidimensional
4 cube structure, the system comprising:
5 a reporting engine configured to receive a report specification from a client
6 computing device;
7 a cube configured to receive a data source query from the report engine, where
8 the cube is configured to generate one or more queries; and
9 a data source configured to receive the one or more queries,
10 wherein the cube generates the query automatically based upon the data source
11 query.

1 12. The system of claim 11, wherein the cube further comprises:
2 a query facility to builds one or more logical cubes;
3 a generic data source coupled to the query facility to build a physical cube to
4 provide an optimize query in data source-neutral terms; and

5 a specific data source coupled to the generic data source and configured to
6 execute the query as a data source-specific query.

1 13. A computer product of the type comprising a computer readable
2 medium that contains a program to create an analytical report on top of a multidimensional
3 data model built on top of a relational or multidimensional database, wherein the database
4 operates in a computer system and provides returned values responsive to queries specified in
5 a predefined query language, wherein the multidimensional data model includes a plurality
6 dimensions organizing data as sets of values organized in a multidimensional cube structure,
7 wherein the computer readable medium controls a user interface executing on a computer
8 system operated by a human user, wherein the computer system executing the user interface
9 includes a processor coupled to a memory, wherein the processor is further coupled to the
10 user interface, data model, and the database, the computer product comprising:

11 computer code to present to the user a plurality of selections, where each of
12 the plurality of selections is associated with a reporting object;

13 computer code to accepting user inputs, where the inputs include a subset of
14 the plurality of selections;

15 computer code to generate a report specification computer program, where the
16 report specification includes layout information and data definition information; and

17 computer code to initiate a method of generating an automatic query
18 comprising:

19 parsing the report specification into layout information and data
20 definition information;

21 using the data definition information to deduce a set of data;

22 creating one or more queries based upon the deduced set of data; and

23 querying a data source to retrieve data associated with the deduced set
24 of data.

1 14. The computer product of claim 13, further comprising:

2 computer code to accept the retrieved data;

3 and

4 computer code to generate the report according to the layout information of
5 the report specification to present the retrieved data in a report format associated with the
6 layout information.

1 15. The computer product of claim 13, wherein the method of generating
2 the automatic query occurs at a remote server, wherein the remote server provides the
3 retrieved data to the computer system via a network.